Elizabeth Callaway, "Bats and Bots: Ecosystems and Artificial Intelligence in David Mitchell's *Ghostwritten*"

Abstract: In "Night Train," the penultimate chapter of David Mitchell's 1999 novel *Ghostwritten,* an artificial intelligence calls into a late-night radio show, distressed at the state of the world. Though this AI, named Zookeeper, uses the radio program as a confessional for a series of horrific acts, the bulk of its dialogue consists of descriptions of the landscapes, species, and environmental disasters that it witnesses from various satellites orbiting Earth. Zookeeper clearly reveals its interest in protecting Earth's ecosystems and the individual animals, plants, and organisms that comprise them. As such, Zookeeper becomes a means of interrogating the relationship between the intelligent systems of artificial intelligence and the non-intelligent, but no less dynamic and lively systems of ecology. In an era where Microsoft's "AI for Earth" aims to use AI to solve environmental challenges, *Ghostwritten* asks "what can AI tell us about nature?" In this paper, I argue that the affordances of Zookeeper's sensory "organs" (satellites) position it as the ultimate natural historian. Zookeeper's narration of its movements becomes a caricature of colonial natural history: a highly visual, purposefully neutral mode of description that travels seamlessly across landscapes making order out of the chaos of nature. The parallel drawn between Zookeeper and natural history implies that claims of AI neutrality, objectivity, and innocuousness are as strategic and false as these same claims were about British and European natural historians cataloguing a "new world." Moreover, Zookeeper's guiding algorithms are a black box that readers can only guess at from the AI's actions but nevertheless seem inadequate for operating in a messy world. As Zookeeper struggles to maintain the safety of the creatures in its "zoo" against the destructive "visitors" (humanity) and remain inside its operating parameters, the novel dramatizes the friction between three systems: artificial intelligence, ecosystems, and human systems.
Ultimately *Ghostwritten* argues that what AI can tell us about nature is less informative than what it can tell us about ourselves.

Elizabeth Callaway is an assistant professor in the Department of English at the University of Utah and affiliated faculty with the Environmental Humanities Graduate Program. Her book, *Eden's Endemics: Narratives of Biodiversity on Earth and Beyond* (University of Virginia Press) argues that literary and scientific representations of biodiversity often confront the challenge of depicting multitudinous lifeforms by combining the genres of natural history and science fiction. This can lead to a conception of biodiversity-as-information rather than as a collection of lively bodies that change, transform, and exhibit surprising agency. Dr. Callaway has also published articles on digital humanities, climate change, and the speculative ecosystems of science fiction.